EXECUTIVE SUMMARY

Purpose

Section 169A of the Clean Air Act (CAA) calls for the U.S. Environmental Protection Agency (EPA) to establish rules to remedy any existing visibility impairment and prevent any future impairment in mandatory Class I federal areas resulting from manmade air pollution. The mandatory Class I federal areas include 156 national parks and wilderness areas. In the continental United States, there are 147 mandatory Class I federal areas located in 121 counties. The EPA is promulgating the regional haze (RH) rule to address visibility impairment caused by numerous sources located across a broad region. The RH program provides a regulatory framework within which States must establish Class I area visibility improvement goals and emission management strategies needed to achieve these goals. The States have flexibility in developing these goals and associated strategies, taking into account a number of statutory and regulatory factors.

The final regulatory impact analysis (RIA) for the RH rule is prepared in response to Executive Order 12866. To fulfill the requirements of the Order, the analysis includes an assessment of illustrative visibility goals evaluated from a national and a regional perspective. The assessment is based on estimated changes in air quality, monetized benefits, costs, and impacts from two types of emissions control strategies.

Methodology

The final RIA methodology has eight elements: scope, time frame, benchmark emissions and air quality levels, baseline emissions and air quality levels, control strategy Cases A and B, cost and economic impact assessment, benefit analysis, and benefit-cost analysis.

Scope. The analysis examines the Midwest/Northeast, Southeast, South Central, Rocky Mountain, West, and Northwest regions of the continental United States. This encompasses 147 mandatory Class I federal areas in 121 counties in the continental United States.

The scope also includes four illustrative visibility progress goals in addition to the visibility improvement due to baseline conditions (the concept of baseline is explained below). The word "illustrative" is important because the final rule provides for the States to establish reasonable progress goals. The illustrative progress goals use a visibility metric called a "deciview." The deciview is related to changes in visual range and contrast and corresponds to uniform changes in haziness. According to the illustrative progress goals, deciview improvements are to occur on the average of the 20 percent worst visibility days of the year. The illustrative progress goals are as follows:

1. 1.0 deciview improvement in 10 years
2. 1.0 deciview improvement in 15 years, which is equivalent to a 0.67 deciview improvement in 10 years.
3. 5% deciview improvement in 10 years
4. 10% deciview improvement in 10 years

Time frame. According to the final RH rule, visibility progress goals are established and progress measured in achieving those goals over a particular period. The time frame for this analysis is a representative year (i.e. 2015) near the end of what the rule describes as the first long- term strategy period (2018).

Benchmark Emissions and Air Quality Levels. Under the RH rule, visibility progress goals are established relative to a set of emission and air quality conditions. When the rule is actually implemented, monitored air quality values and current emissions inventories will be used to characterize benchmark conditions. To simulate that process, the benchmark for this RIA includes emissions and air quality modeling which reflect increases in economic activity to a future year and emission levels for a future year. Also, reflected in the emission projections are the emission reductions associated with certain federal stationary source emission and mobile emissions control programs.

However, the benchmark emissions and air quality levels do not include emission reductions resulting from implementation plans aimed at the ozone and particulate matter National Ambient Air Quality Standards (NAAQS) which were promulgated in 1997 including associated federal control measures such as the Tier II Mobile Source program.

Baseline Emissions and Air Quality Levels. With the implementation plans for the new ozone and particulate matter NAAQS and the Tier II mobile sources program, many counties with Class I areas will realize improvements in visibility. As noted in the final RH rule, these anticipated deciview improvements are creditable as progress toward achieving established progress goals (visibility improvements due to other CAA programs which are implemented after the States submit their visibility progress improvement plans are also creditable). If a Class I area achieved or surpassed all the illustrative progress goals in going from benchmark to baseline conditions, there would be no incremental air quality, benefit, cost, or impacts associated with the RH rule for that area in the first long- term strategy period.

The RIA attempts to simulate this creditable progress by modeling benchmark and baseline air quality levels and their differences relative to the illustrative progress goals.

Controls Strategy Cases A and B. For Class I areas not achieving an illustrative progress goal under baseline conditions**,** further emission reductions from sources which impair

visibility in those Class I areas may be appropriate. The RIA simulates this possibility by the use of a least cost optimization and air quality model to generate control strategies. The model is designed to minimize the cost of achieving an illustrative progress goal.

To reflect the uncertainty inherent in the fugitive dust emissions inventory and the role of fugitive dust in impairing visibility, two control strategy cases are run for each of the four illustrative progress goals. Case A provides for the use of fugitive dust control measures. Case B precludes the use of fugitive dust control measures.

One output of the control strategies simulation is air quality information. In particular, information on where and by how much particulate matter and visibility level change is provided. Another output of the control strategies simulation is cost. Cost estimates are developed at the source, region, and national levels.

Cost and Economic Impact Analysis. The cost of achieving the four illustrative progress goals under Case A or Case B conditions is measured incremental to baseline control levels using the optimization model mentioned above. Costs are produced on a source, region, and national level.

Economic impact is evaluated by assessing control cost relative to sales or revenues for affected sources and economic sectors.

Benefit Analysis. The air quality levels which are an output of the control strategies element is an input to the benefit analysis. That air quality information is combined with air quality effects (e.g. visibility, human health, soiling) models and valuation (e.g. willingness to pay for improved visibility, reduced health risk, etc.) functions to generate estimates of the monetized benefits relative to baseline conditions.

Two sets of assumptions about air quality effects models and valuation functions are used to generate a range of benefit estimates for the four illustrative progress goals under Case A and B.

Benefit-Cost Analysis. The benefit-cost analysis calculates net benefits (i.e. benefits minus costs) for each of the illustrative progress goals relative to baseline conditions. According to economic theory, with positive net benefits and the potential for the gainers to compensate the losers (of a control strategy) society is better-off relative to baseline conditions. With negative, net benefits, society is worse off.

However, incomplete measures of monetized benefits coupled with the flexibility the RH rule provides the States in considering other reasonable progress goals and more cost-effective control strategies, limit the precision of the benefit-cost analysis. Consequently, the analysis is best view as a qualified assessment of the potential costs and benefits of achieving certain

illustrative progress goals.

A benefit-cost analysis is conducted under conditions of a uniform national progress goal. There, each region must adopt the same illustrative progress goal. There are sixteen net benefit estimates (benefits minus costs) for the uniform national progress goal assessment. This is due to four illustrative progress goals times two control strategy cases time two estimates of benefits.

A benefit-cost analysis is also conducted for the situation where each region identifies and adopts the optimal goal from an economic perspective. This situation provides for differences in illustrative progress goals across the regions in the first long- term strategy period. This portion of the analysis compares the net benefits from adopting the optimal uniform national goal with the optimal set of regional goals. Two estimates of economic efficiency gains are developed to reflect the range in the benefit estimates. Only control strategy Case A (with fugitive dust controls) costs are used in this portion of the assessment.

Findings of the RIA for the RH Rule

Four major findings emerge from the RIA for the RH Rule

1. Other Environmental Programs Foster Achievement of Illustrative Visibility Progress Goals. The proposed Tier II Mobile Source Rule and Implementation Programs for the Ozone and Particulate Matter NAAQS could lead to significant improvements in visibility in many parts of the country. If States find those improvements are sufficient to achieve visibility progress objectives in the first long- term strategy period, the incremental benefits, costs, and economic impacts of the goal and emission management strategy elements of the Regional Haze rule could be zero. However, under such conditions, there would still be $72 million (1990 dollars) in cost for the administrative (e.g. planning, analysis, etc.) and Best Available Retrofit Technology (BART) requirement (for some establishments in certain source categories) parts of the Regional Haze rule.

2. For 12 of 16 Uniform National Goal Conditions, Net Benefits of the RH Rule Are Positive for the First Long- Term Strategy Period. With four alternative illustrative progress goals, two sets of assumptions about benefits, and two emission control strategies cases, net benefits are calculated for sixteen conditions. Positive net benefits mean that the monetized benefits resulting from strategies aimed at an illustrative goal exceed the costs.

In these calculations, visibility benefits for Class I areas account for between 12 percent and 79 percent of total benefits depending on the set of benefit assumptions applied. Benefits related to reduced particulate matter concentrations in the human health and soiling effects categories account for the remainder of monetized benefits. Some categories of benefits could not be monetized due to the lack of concentration-response and/or valuation functions. Other categories could not be monetized due to the lack of available air quality modeling (e.g., ozone concentration levels and changes).

3. A RH Program Allowing Visibility Progress Goals to Vary Among Regions Is Likely to Yield Higher Net Benefits. The estimated net benefits when all regions adopted the same goal were compared to conditions where each region selected a reasonable progress goal which maximized net benefits associated with air quality improvements and control costs in that region. Estimated net benefits were higher when regions could select the progress goal.

4. The RIA Provides Support for the Flexible Approach Adopted in the RH Rule. The final RH Rule provides for better integration of the Tier II Mobile Source, NAAQS, and RH implementation. The RH Rule provides States with flexibility in the designing RH goals and emission management strategies. And, the final RH Rule facilitates development of better information as inputs to the goal and emission management strategies process.

The RIA demonstrates the importance of addressing the visibility progress gains due to other environmental programs. The RIA illustrates the economic efficiency gains of regional and State flexibility. The RIA reveals the importance of better information in the emission control strategy area. Hence, the RIA provides additional support for the RH Rule.

Refinements to the Previous Economic Analysis

In response to public comment and other factors, the final RIA has an expanded scope, better data, and improved analytical procedures relative to the analysis done for rule proposal.

Expanded Scope. The final RIA expands the number of illustrative reasonable progress goals from two to four. The illustrative goals are expressed in terms of the deciview. This visibility index expresses incremental changes in perception on a common scale over the range of possible conditions. The illustrative goals are directed toward improving visibility on the average of the 20 percent worst visibility days of the year. Two of the goals are expressed in absolute terms. They are a 1.0 deciview improvement in 10 years and a 1.0 deciview improvement in 15 years. These are the same goals assessed in the proposal package economic analysis. Two "relative" progress goals have been added to the analysis. The relative illustrative progress goals are a 5 percent deciview improvement in 10 years and a 10 percent deciview improvement in 10 years (e.g., 5 percent and a 10 of average 20 percent worst day deciview values). The latter goal approximates the rate of progress that, if sustained, would result in attaining natural visibility conditions in 60 years for an area with a 30 deciviews baseline and a natural visibility level of 12 deciviews.

In addition, the final RIA now looks at the economic efficiency consequences of these illustrative progress goals from both a regional and a national perspective. The final RIA also

assesses the potential economic impacts from implementing the illustrative visibility progress goals. Finally, this RIA considers two emission control strategies; both of which employ a least-cost optimization methodology for selecting cost-effective controls within the relevant region. Case A considers the use of fugitive dust emissions controls while Case B which precludes the use of fugitive dust emissions control.

Better Data. The final RIA includes refinements to the control cost data file to reflect information gained on N0x controls during the N0x SIP Call rulemaking. In addition, the air quality modeling in the final RIA is enhanced to capture visibility improvements from reductions in volatile organic compounds and directly emitted particulate matter emissions. The RIA also contains additional air quality data which enables expanded geographic coverage of the benefit analysis.

Improved Analytical Procedures. The final RIA estimates and portrays the visibility improvements which result from related environmental objectives such as Tier II Mobile Source and the particulate matter and ozone NAAQS implementation programs. The final RIA also provides for more complete coverage of the visibility benefits. In particular, the final RIA calculates benefits from improved visibility accruing to the 147 Class I areas in 121 Counties in the continental United States. The proposal analysis only accounted for the visibility benefits accruing to a subset of these areas.

Results

The range of estimated incremental benefits is $1 billion to $19 billion (1990 dollars). The corresponding range for costs is $1 billion to $4 billion (1990 dollars). Because the States have the potential flexibility to develop reasonable progress goals that rely exclusively on visibility progress resulting from implementation of the Tier II Mobile Sources rule, NAAQS programs for ozone and particulate matter and other creditable programs, the incremental effects of the Regional Haze rule could be less. Under such circumstances, there would still be administrative activities as well as emissions reduction requirements for some establishments in BART source categories. The corresponding costs are estimated to be $72 million (1990 dollars).

The results summarized in the paragraphs which follow pertain to an assessment of the four illustrative progress goals.

Many of the 121 Counties with Class I Areas Achieve or Surpass Illustrative Progress Goals for the First Long- Term Strategy Period Due to Related Environmental Programs. Even with the most stringent illustrative goal (10 percent deciview improvement in 10 years), 27 counties with Class I areas achieve or surpass the goal without adopting an emission control strategy to address RH. For the least stringent illustrative goal (1.0 deciview improvement in 15 years), 55 counties with Class I areas achieve or surpass the goal. This projected improvement in visibility is due to emission reductions from a modest (relative to what the EPA recently proposed) Tier II Mobile Source Program as well as emission reductions which

provide for partial (as opposed to full) attainment of the ozone and particulate matter NAAQS. Hence, the visibility progress attributable to these related programs is probably understated.

Simulated Control Strategies are Effective in Helping More Areas Achieve the Illustrative Goals and Reducing the Deciview Improvement Shortfall. With emission control strategy Case A (with fugitive dust controls), an additional 25 Counties with Class I areas meet the 10 percent deciview improvement in 10 years goal. With Case A, an additional 46 counties with Class I areas meet the 1.0 deciview improvement in 15 years illustrative progress goal. The corresponding totals for emissions control strategy Case B (no fugitive dust controls) are an additional 11 and 39 counties with Class I areas.

Counties with Class I areas which have estimated deciview shortfalls after imposition of Case A or Case B control strategies are often very close to achieving the progress goal. For example, with the 1.0 deciview improvement in 10 years goal, 50 percent to 58 percent of the counties achieve progress of 0.8 deciviews or greater. With the same illustrative goal, over 70 percent of such counties achieve visibility progress of 0.7 deciviews or greater under Case A and B conditions. See Table ES-1.

Table ES-1
The Number of Counties with Class I Areas with Deciview (dv) Shortfalls after Imposition of Simulated Control Strategies (1.0 dv Improvement in 10 Years Illustrative Goal)

Emission Control Strategy Case	Class I Area Counties with dv Shortfalls	Counties with dv Shortfall Less Than 0.2 dv	Counties with dv Shortfalls Greater than 0.2 dv but less than 0.3dv
Case A	**19**	**11**	**3**
Case B	**32**	**16**	**7**

The Remedy for Highly Uncertain Fugitive Dust Emissions and Control Measure Effectiveness is Improved Emissions Data, Air Quality Monitoring, and Air Quality Modeling. Emission control strategy Case B looked at the consequences of removing fugitive dust controls from the set of possible control measures. If visibility progress was nearly the same under Case B and compliance costs were markedly less, Case B might represent a superior control strategy. However, the analytical simulations did not support that hypothesis. First, relative to Case A, compliance costs went down in some regions and up in others. Second, visibility progress was less under Case B. In particular, there was an increase in the number of Class I area counties with deciview improvement shortfalls.

A comparison of Case A and Case B shows different air quality and cost results. In the

face of uncertainty regarding fugitive dust emission and ambient impacts and no close second best control strategy, one recommendation emerges. That is acquisition, development and use of better emissions data, air quality monitoring data, and air quality modeling in the establishment of goals and development of emission management strategies.

The Projected Potential Economic Impact Associated with Achieving the Illustrative Progress Goals is Generally Small, Despite the Fact that Control Strategies Affect Parts of Many Sectors of the Economy. There are nearly 16 million private and non-profit establishments in the United States. The number of establishments is much greater than the number of firms because of the multi-establishment nature of many businesses. About 7 million of these 16 million establishments are in regions which would require further emission reductions to meet the illustrative progress goals. According to emission control strategy Case B estimates, between 0.4 and 1.2 million of the establishments could potentially experience some compliance costs in meeting the illustrative goals. However, the estimated magnitude of such costs for these establishments is relatively small. Specifically, between 0.3 and 1.0 million of these establishments have compliance costs relative to sales ratios of less than 0.01 percent. The number of establishments with compliance cost to sales ratios of 1 percent or greater ranges from 440 to 3360. The results are similar for Case A and the governmental sector.

Where Projected Potential Economic Impact May Be Significant, the Flexible Features of the RH Rule Allow States to Establish Goals and Design Control Strategies Which Avert or Mitigate Such Impacts. As indicated above, there is a relatively small number of estimated establishments with compliance cost as a percent high enough to warrant closer examination. With opportunities for purchasing equivalent visibility improvement emission reductions from other sources, State and local governments and other potentially affected entities may be able to markedly reduce control costs and hence, mitigate adverse impacts. With opportunities for States to establish other progress goals, such impacts may be averted altogether. The flexibility to design and implement improved control strategies and establish other goals is a major feature of the RH rule.

The Estimated Net Benefits of Achieving Nationally Uniform Progress Goals are Often Positive. However, the Results are Sometimes Sensitive to the Stringency of the Goal, the Emission Control Strategy Case, and the Benefits Methodology. With the set of assumptions leading higher benefit estimates, net benefits are substantially positive with benefit to cost ratios ranging from four to eight for all illustrative visibility progress goals.

With the set of assumptions leading to lower benefit estimates, the coverage of potential benefits is less complete and the resulting estimates substantially less. Under such conditions, net benefits are never positive if the illustrative goal of 10 percent deciview improvement over 10 years is imposed throughout the nation. However, that does not mean that goal is not appropriate for

some Class I areas. But, despite the more conservative set of benefit estimation assumptions, net benefits remain substantially positive for the 1.0 deciview improvement in 15 years illustrative goal. For the other two illustrative goals, net benefits are slightly positive (benefit to cost ratios of 1.05 to 1.07) under Case A conditions and slightly negative (benefit to cost ratios of 0.82 to 0.92) under Case B conditions. The net benefit estimates for the uniform national goals, control strategy cases and range of benefit assumptions are summarized in Table ES-2.

Table ES-2
Estimated Annual Net Benefits in 2015
for Illustrative Progress Goals

Illustrative National Goal	Annual Quantified Net Benefits (millions of 1990 $) Case A	Annual Quantified Net Benefits (millions of 1990 $) Case B
Baseline Visibility	$0	$0
1.0 dv/15 years	$280 to $4,490	$60 to $3,530
1.0 dv/10 years	$80 to $5,370	($260) to $8,300
5% dv/10 years	$100 to $5,290	($100) to $8,170
10% dv/10 years	($1,820) to $14,360	($1,770) to $15,740

Allowing States to Establish Progress Goals to Address the Unique Characteristics of their Region Can Boost the Net Benefits Relative to a Scenario Which Mandates a Uniform National Visibility Progress Goal. Using the Case A emission reduction strategy as an example, the estimated net benefits from establishing the optimal (net benefit maximizing) uniform national goal were compared to estimated net benefits from adopting the set of goals which maximized net benefits for each region. Economic efficiency gains were realized (net benefits increased) when regions were given the flexibility to establish the optimal goal for air quality improvements accruing to the region. For example, the estimated net benefits for the nation were increased from $15 million to $671 million depending on the set of benefit estimation assumptions used.

Remaining Limitations and Caveats

Although improved from the proposed rule analysis, several limitations remain in the final RIA. As noted by public commenters and others, we do not assess nor do we know the incremental benefits, costs, and impacts in getting to natural visibility conditions. Such an assessment would involve the use of assumptions having a high degree of uncertainty because of having to distant forecasts of emissions, control possibilities, costs, benefits, etc. Without valid forecasts, examination of the 2015 snapshot year understates the visibility progress between baseline and natural visibility conditions. Hence, the RIA approach may understate the associated

benefits, costs, and economic impacts in getting to natural visibility conditions.

Within the context of the analytical time frame adopted in this RIA, there are also other limitations. The major remaining limitations are discussed below.

Limitations Due to Abstraction from the Program to Implement the Grand Canyon Visibility Transport Commission Recommendations. The final RIA abstracts from the ongoing successful partnership, goals establishment, and emission management strategies process undertaken by the western States that participated in the Grand Canyon Visibility Transport Commission (GCVTC). The predictions of this RIA regarding the effects of illustrative goals for the Class I areas affected by the GCVTC's emission management strategies are not an attempt to second guess the rigorous analytical process of the GCVTC effort. The RH RIA assessment is merely illustrative.

Limitations Which Result in an Overstatement of the Incremental Effects of the Rule for the First Long- Term Strategy Period. Visibility improvements at Class I areas resulting from the particulate matter and ozone NAAQS and Tier II programs are creditable in achieving visibility progress goals. Visibility progress at Class I areas achieved by those programs reduces the need for further regulations directed at the progress goals during the first (and often subsequent) long- term strategy period(s).

The final RIA for RH does not address the Class I area visibility gains from full attainment of the particulate matter and ozone NAAQS. Furthermore, the Tier II program which was analyzed in the final RIA for RH included less than 10 percent of the emission reduction in the Tier II proposal package. Consequently, the incremental effects of the RH rule are overstated.

If full implementation of these other environmental programs results in achievement of the visibility progress goals or if the States demonstrate the adequacy of goals requiring no additional measures beyond CAA programs, the incremental air quality improvements, benefits, costs, and economic impacts of the RH rule are less for the first long-term strategy period. Under such conditions, the incremental costs of the Regional Haze rule may be associated with administrative activities (e.g. planning, analysis, etc.) and BART controls for some establishments in certain source categories. The corresponding cost is estimated at $72 million (1990 dollars).

Limitations Which Cause the Costs to be Overstated for the First Long- Term Strategy Period. The final RIA uses a least cost/optimal strategy algorithm to simulate achievement of alternative visibility progress goals. The approach has many desirable features. However, the approach does not consider technological progress, Class I area visibility impairment due to emissions from other nations, nor the use of cap and trade systems and other innovative control strategies. Failure to incorporate these factors into the analysis makes the job of achieving visibility progress goals more costly than it needs to be. For example, with a technological progress rate of 2 percent, emission reductions for a given expenditure would be

nearly 40 percent greater by 2015 and nearly 50 percent greater by 2018 than they are today.

Limitations Which Cause the Benefits to be Understated for the First Long- Term Strategy Period. The benefits of emission reductions aimed at achieving progress goals in Class I areas often spill over into other geographic areas (e.g. visibility in residential areas) and other categories of effects (e.g. ecological). However, while conceptually appropriate, inclusion of these benefits often requires a foundation of applied research methodologies and results which are not currently available. Incomplete coverage of benefits for other geographic areas, effects categories, and pollutants (e.g. ozone) causes the monetized benefits to be understated. Some of the unquantified benefit categories are summarized in Table ES-3. The table does not include unquantified benefits due to reductions in ambient concentrations of ozone, carbon (a pollutant associated with global climate change), or mercury (a toxic pollutant). Although in some instances, the health endpoints may be similar.

Table ES-3
Unquantified Benefit Categories

Effects Categories	Unquantified Benefits from Reduced Risks Due to Lowered PM Concentrations
Human Health	Changes in Pulmonary Function Morphological Changes Altered Host Defense Mechanisms Cancer Other Chronic Respiratory Disease
Welfare	Materials Damage exclusive of Household Cleaning Damage to Ecosystems (e.g. acidic deposition) Nitrates in Drinking Water Brown Clouds

Limitations Which May Cause the Benefits to be Overstated for the First Long-Term Strategy Period. The benefit methodology used in this analysis is to transfer and extend previous applied research methods and results. Those results are often based on small reductions in environmental risk leading to anticipated improvements in visibility and other benefit categories.

However, the foundation or baseline for the RH RIA is the yet to be realized (or ex ante) benefits from the N0x SIP call, ozone and particulate matter NAAQS, and Tier II programs. Furthermore, the total environmental changes associated with those programs is more than a marginal change for many areas. If there is diminishing marginal utility for environmental

improvement, the estimated benefits could be overstated.

In addition, some have argued that emission reductions to meet illustrative progress goals may exacerbate other environmental problems when certain atmospheric and chemical conditions are present. The specific allegations are that attainment of visibility progress goals may also mean intermittent increases in particulate matter, tropospheric ozone levels, UVB radiation and reduced soil quality for some areas.

To the extent these hypotheses are true and not compensated for in the incomplete coverage of benefits limitation mentioned earlier, the estimated benefits of achieving the illustrative progress goals could be overstated.

Limitations With an Unknown Effect on Incremental Benefits, Costs, and Economic Impacts. Uncertainties regarding emission projections, air quality modeling and control strategy design have an indeterminant effect on the incremental effects of the RH rule.

Furthermore, there remain some uncertainties surrounding causal mechanism and other factors for some of the health effects categories. There is some possibility that this could lead to an overestimate of the benefits for these categories.

In addition, the final RIA assumed a 37-State as opposed to a 22-State reduction in nitrogen oxides emissions associated with the final N0x SIP call rule-making of September 1998. The consequences of that differential are a change in the amount of visibility progress associated with illustrative goals and an understatement of partial attainment requirements for the ozone and particulate matter NAAQS. The impact of not accounting for that differential will likely be confined to the Midwest/Northeast and Southeastern Regions. However, whether that impact is positive, negative, or insignificant is indeterminant without further analysis.

Conclusion

The final RIA, although highly caveated and illustrative, represents an improvement over the analysis prepared for the proposed rule due to comments from the public and improvements initiated by the EPA staff.

The RIA demonstrates significant visibility progress in 121 counties with 147 Mandatory Class I federal areas in the continental United States. These improvements result from other CAA programs as well as those targeted directly at illustrative progress goals. Despite incomplete coverage of effects and pollutants, the monetized benefits of strategies aimed at illustrative nationally uniform goals are substantial, outweighing the control strategy costs under

most conditions for the first long- term strategy period. However, higher net benefits may result from a RH program which provides for reasonable progress goals to vary among

regions.

These and other aspects of the RIA provide additional support for the RH rule, a rule which recognizes the value of planning, better information, coordination with stakeholders and other environmental programs, and de-centralized, reasoned decision-making.